UNITED STATES DEPARTMENT OF COMMERCE United States Patent and Trademark Office Address: COMMISSIONER FOR PATENTS P.O. Box 1450 Alexandria, Virginia 22313-1450 www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO. CONFIRMATION NO.	
10/828,530	04/06/2004	Laszlo J. Kecskes	ARL 03-60	4322
	7590 07/21/200 SEARCH LABORAT	EXAMINER		
ATTN AMSRL 2800 POWDER		WYSZOMIERSKI, GEORGE P		
ADELPHI, MD			ART UNIT	PAPER NUMBER
			1793	
		MAIL DATE	DELIVERY MODE	
			07/21/2008	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary		Application	n No.	Applicant(s)				
		10/828,53	0	KECSKES ET AL.				
		Examiner		Art Unit				
			Wyszomierski	1793				
	The MAILING DATE of this communication appears on the cover sheet with the correspondence address Period for Reply							
A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION. - Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication. - If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication. - Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).								
Status								
1) 又	Responsive to communication(s) filed on	30 April 2008						
	This action is FINAL . 2b) This action is non-final.							
<i>'</i> —	Since this application is in condition for a	_		secution as to the	e merits is			
٥,١	closed in accordance with the practice under <i>Ex parte Quayle</i> , 1935 C.D. 11, 453 O.G. 213.							
Dispositi	on of Claims							
4)🛛	Claim(s) <u>1-40</u> is/are pending in the applic	cation.						
-	4a) Of the above claim(s) is/are wi		nsideration.					
	\[\times also visite diserve stating of the control of the c							
·	Claim(s) <u>1-6,9,11-15,28,30,31 and 34-40</u>							
· · · · · · · · · · · · · · · · · · ·	☑ Claim(s) <u>7-0,9,77-70,20,30,37 and 34-40</u> is/are rejected. ☑ Claim(s) <u>7,8 and 10</u> is/are objected to.							
-	Claim(s) are subject to restriction	and/or election re	equirement					
		aria, or orocion re	oquii omonii.					
	on Papers							
-	The specification is objected to by the Ex		_					
10)[The drawing(s) filed on is/are: a)[-					
	Applicant may not request that any objection	to the drawing(s) b	e held in abeyance. See	e 37 CFR 1.85(a).				
	Replacement drawing sheet(s) including the	correction is require	ed if the drawing(s) is ob	jected to. See 37 C	FR 1.121(d).			
11) 🔲	The oath or declaration is objected to by	the Examiner. No	te the attached Office	Action or form P	ГО-152.			
Priority u	ınder 35 U.S.C. § 119							
 12) Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f). a) Some * c) None of: 1. Certified copies of the priority documents have been received. 2. Certified copies of the priority documents have been received in Application No. 3. Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)). * See the attached detailed Office action for a list of the certified copies not received. 								
2) Notic 3) Inforr	t(s) e of References Cited (PTO-892) e of Draftsperson's Patent Drawing Review (PTO-9- nation Disclosure Statement(s) (PTO/SB/08) r No(s)/Mail Date	48)	4) Interview Summary Paper No(s)/Mail Da 5) Notice of Informal F 6) Other:	ate				

Application/Control Number: 10/828,530 Page 2

Art Unit: 1793

1. The amendment filed April 30, 2008 has been entered. Claims 1-40 are pending in this application.

- 2. Claims 34-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Independent claim 34 is directed to a method but does not recite any steps to be performed in such a method, and thus claim 34 and all claims dependent thereon are indefinite.
- 3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:
 - (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.
- 4. Claims 1-6, 9, 11-15, 28, 30, 31, and 34-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over the Gu et al. <u>Journal of Non-Crystalline Solids</u> article (reference A5 on the IDS filed April 6, 2004).

Gu disclose a bulk metallic glass including (from page 79 and Table 1 of Gu) some combination of Hf, Zr, Ni, Al and Ti. The examiner's position is that if "x" in the formula of Gu is equal to approximately 0.8, then an alloy according to the instant claims would be produced. The Gu alloys have a density and a ratio of glass transition temperature to melting temperature as recited in the instant claims. Gu discloses making samples of the prior art alloys that are 3 mm in their smallest dimension by arc melting and suction casting.

Application/Control Number: 10/828,530 Page 3

Art Unit: 1793

Gu does not disclose any specific example that meets all of the compositional limitations as presently claimed, i.e. Gu does not disclose an example where "x" is 0.8, and does not teach the various eutectic combination(s) stated or implied by instant claims 28 and 34-39. The examiner's position is that page 79, Table 1, and Figs. 2 and 3 of Gu disclose sufficient information to one of skill in the art that all values of "x" between 0 and 1 would fall within the purview of Gu, including those values which would result in the presently claimed alloy compositions.

Thus, a prima facie case of obviousness is established between the disclosure of Gu et al. and the presently claimed invention.

- 5. In a response filed April 30, 2008, Applicant suggests that the present invention can be distinguished from the Gu disclosure in that the intent of the present Applicants is to produce a purely Hf-based alloy without the presence of Zr. Applicant's arguments have been carefully considered, but are not persuasive of patentability because none of the rejected claims exclude Zr. The Federal Circuit has stated that it is important not to import into a claim limitations that are not part of the claim. For example, a particular embodiment appearing in the written description may not be read into a claim when the claim language is broader than the embodiment. See *Superguide Corp. v. DirecTV Enterprises, Inc.*, 69 USPQ2d 1865, 1868 (Fed. Cir. 2004).
- 6. Claims 16-27, 29, 32, and 33 are allowable over the prior art of record, and Claims 7, 8 and 10 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the

Application/Control Number: 10/828,530 Page 4

Art Unit: 1793

base claim and any intervening claims. The prior art does not disclose or suggest materials having compositions as defined in these claims.

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to George Wyszomierski whose telephone number is (571) 272-1252. The examiner can normally be reached on Monday thru Friday from 8:00 a.m. to 4:30 p.m. Eastern time.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Roy King, can be reached on (571) 272-1244. All patent application related correspondence transmitted by facsimile must be directed to the central facsimile number, (571)-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/George Wyszomierski/ Primary Examiner Art Unit 1793